

Amendments to the Specification:

Please replace page 16 of the specification with the attached replacement page 16.

Please replace page 16a of the specification with the attached replacement page 16a.

Please add the attached Abstract page to the specification.

Table 1. Analysis of codeinone reductase enzyme activity and transcript in developing opium poppy and in plant suspension culture.

Plant Material	Plant age (days)	Specific activity (pkat/mg)	Total activity (pkat/dwt)	Transcript detection*
3 cm	7	11	310	+
5 cm	14	9	330	+
7 cm	21	8	310	+
20 cm	56	12	150	+
	7	10	330	+

* Presence of transcript in each RNA population was determined by performing two nested PCR amplifications as described in the Examples.

Table 2. Analysis of codeinone reductase enzyme activity and transcript in developing opium poppy two days after petal fall.

Plant Part	Specific activity (pkat/mg)	Total activity (pkat/dwt)	Transcript detection ^a
Capsule	25	730	+
Stem ^b	30	250	+
Leaf lamina	10	120	+
Lateral root	90	560	+

^a Presence of transcript in each RNA population was determined by performing two nested PCR amplifications as described in the Examples.

^b Stem tissue beginning at the receptacle and extending 12 cm downwards was extracted. Plants were approximately 120cm high.